FIG. 1A

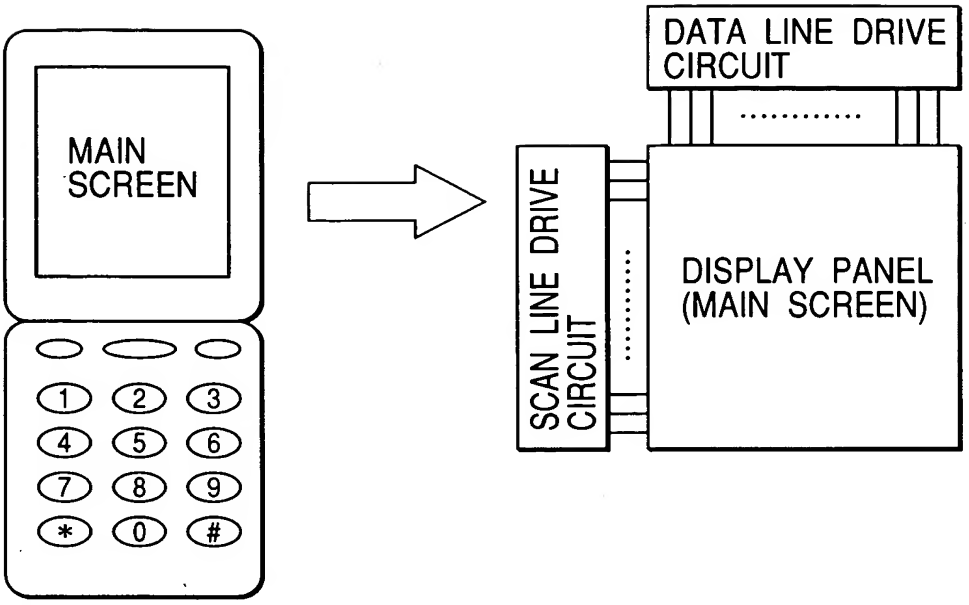

MAIN
SCREEN
1
2
3
4
5
6
7
8
9
*
0
#
DATA LINE DRIVE
CIRCUIT
SCAN LINE DRIVE
CIRCUIT
DISPLAY PANEL
(MAIN SCREEN)

FIG. 1B

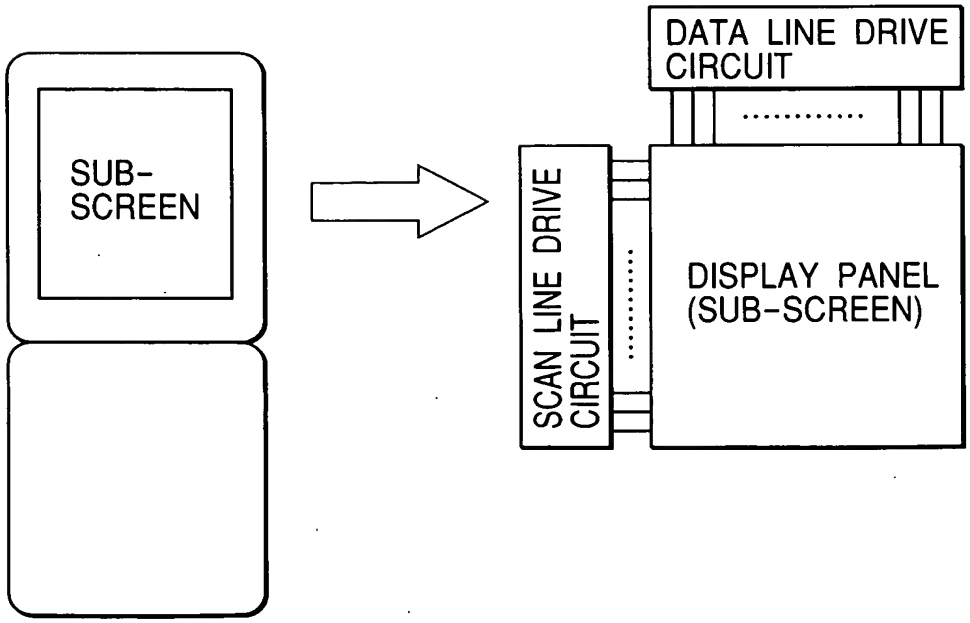

SUB-
SCREEN
DATA LINE DRIVE
CIRCUIT
SCAN LINE DRIVE
CIRCUIT
DISPLAY PANEL
(SUB-SCREEN)

FIG. 2A

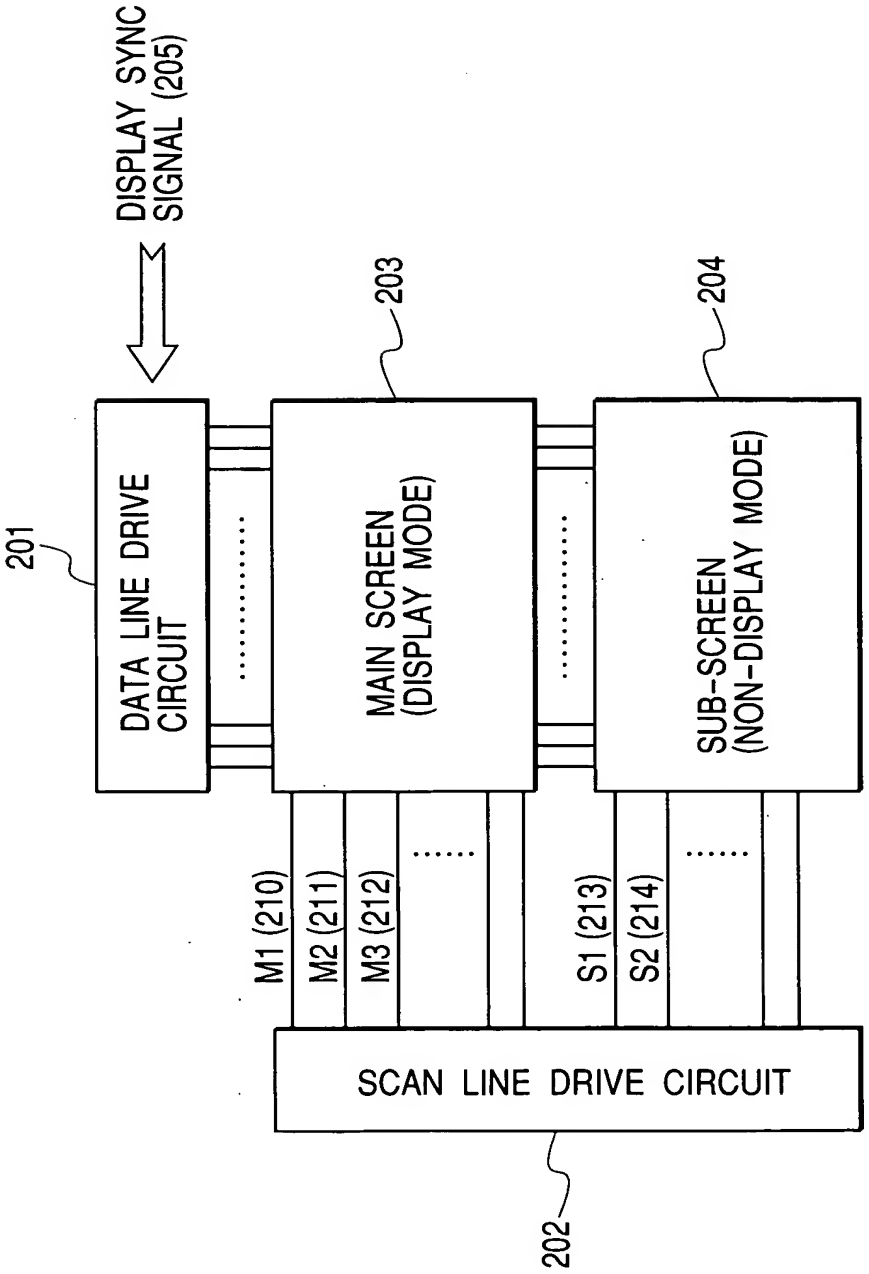

DISPLAY SYNC SIGNAL (205)
201
DATA LINE DRIVE CIRCUIT
203
MAIN SCREEN (DISPLAY MODE)
204
SUB-SCREEN (NON-DISPLAY MODE)
M1 (210)
M2 (211)
M3 (212)
S1 (213)
S2 (214)
SCAN LINE DRIVE CIRCUIT
202

FIG. 2B

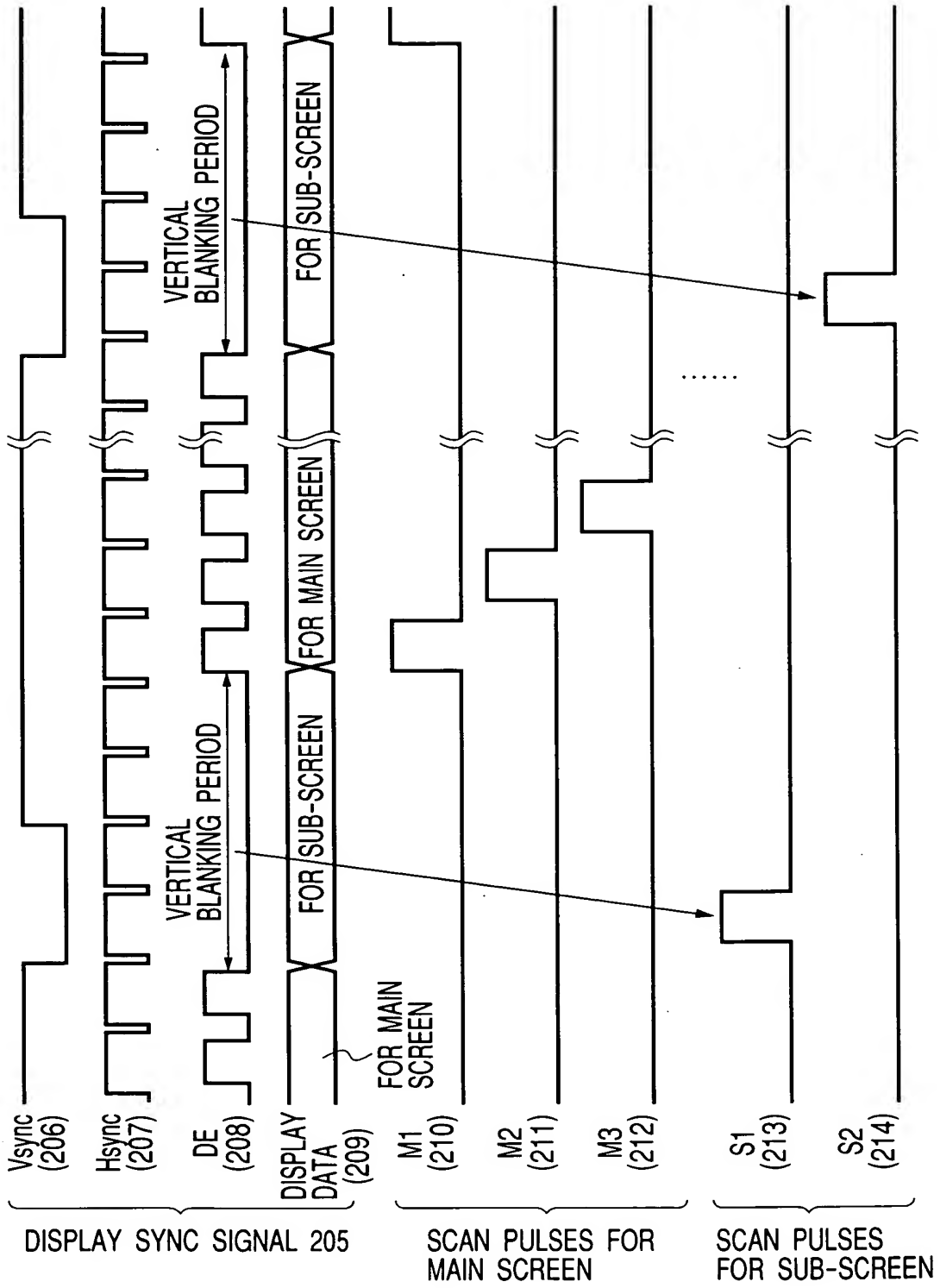

Vsync (206)
Hsync (207)
DE (208)
DISPLAY DATA (209)
VERTICAL BLANKING PERIOD
FOR SUB-SCREEN
FOR MAIN SCREEN
FOR/SUB-SCREEN
VERTICAL BLANKING PERIOD
FOR MAIN SCREEN
M1 (210)
M2 (211)
M3 (212)
S1 (213)
S2 (214)
DISPLAY SYNC SIGNAL 205
SCAN PULSES FOR MAIN SCREEN
SCAN PULSES FOR SUB-SCREEN

FIG. 3

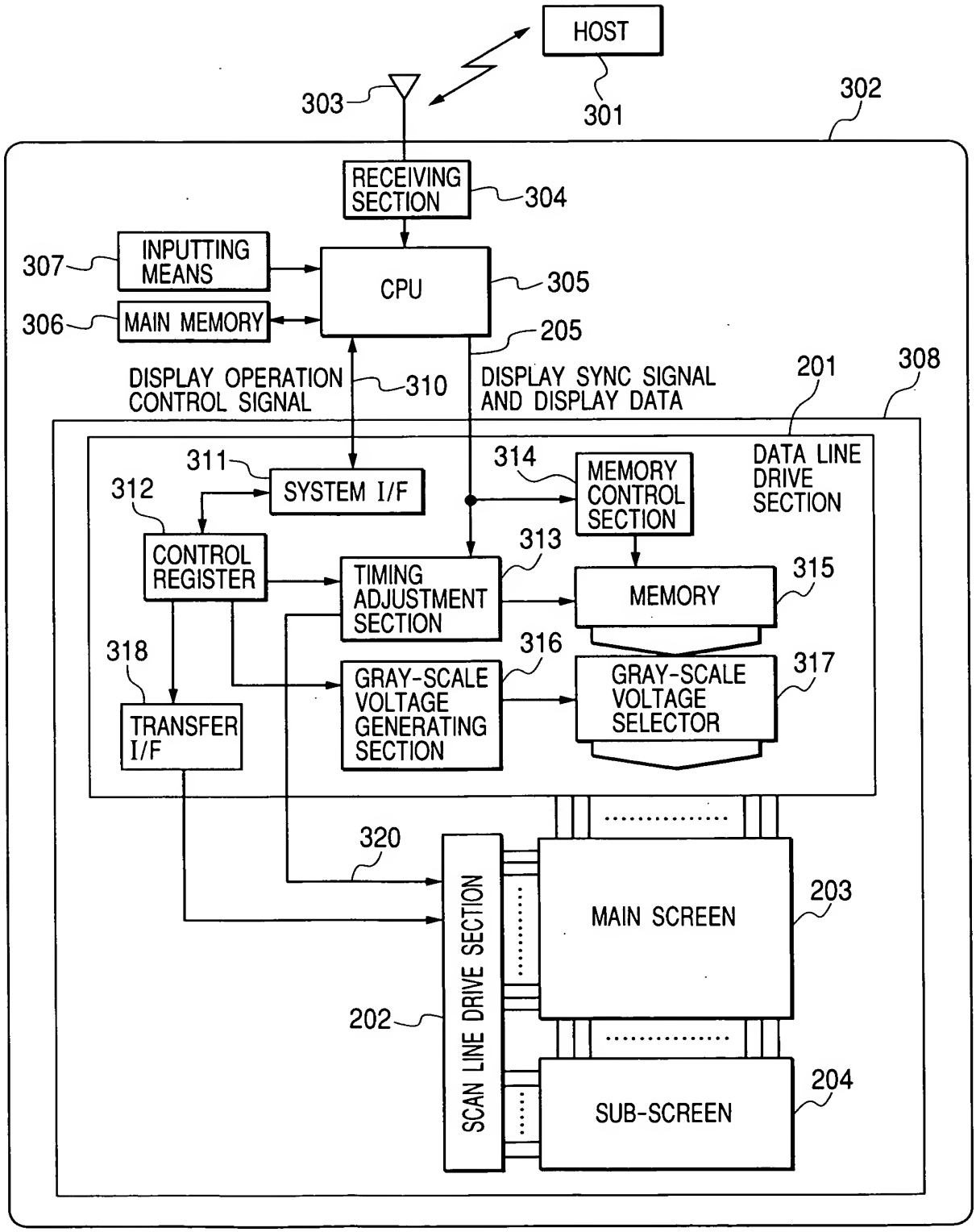

HOST
301
303
302
RECEIVING SECTION
304
307
INPUTTING MEANS
CPU
305
306
MAIN MEMORY
205
DISPLAY OPERATION CONTROL SIGNAL
310
DISPLAY SYNC SIGNAL AND DISPLAY DATA
201
308
311
SYSTEM I/F
314
MEMORY CONTROL SECTION
DATA LINE DRIVE SECTION
312
CONTROL REGISTER
313
TIMING ADJUSTMENT SECTION
315
MEMORY
318
316
GRAY-SCALE VOLTAGE GENERATING SECTION
317
GRAY-SCALE VOLTAGE SELECTOR
TRANSFER I/F
320
SCAN LINE DRIVE SECTION
MAIN SCREEN
203
202
SUB-SCREEN
204

FIG. 4

CONTROL REGISTER ADDRESS (HEX)	16-BIT DATA															
	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
10h	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	DS
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11h	SL7	SL6	SL5	SL4	SL3	SL2	SL1	SL0	ML7	ML6	ML5	ML4	ML3	ML2	ML1	ML0
	0	1	1	0	0	0	0	0	1	0	1	1	0	0	0	0
12h	*	*	*	*	*	*	*	*	BL7	BL6	BL5	BL4	BL3	BL2	BL1	BL0
	*	*	*	*	*	*	*	*	0	0	0	0	0	1	0	0
13h																

DS = SIGNAL FOR SELECTING DISPLAY-MODE SCREEN,
MS = SIGNAL REPRESENTING NUMBER OF DRIVE LINES IN MAIN SCREEN,
SL = SIGNAL REPRESENTING NUMBER OF DRIVE LINES IN SUB-SCREEN,
BL = SIGNAL REPRESENTING NUMBER OF LINES IN VERTICAL BLANKING PERIOD,
* = UNESTABLISHED

	DS	
ESTABLISHED VALUE	0	1
OPERATION OF DRIVE CIRCUIT	MAIN SCREEN IS IN DISPLAY MODE (SUB-SCREEN IS IN NON-DISPLAY MODE)	SUB-SCREEN IS IN DISPLAY MODE (MAIN SCREEN IS IN NON-DISPLAY MODE)

FIG. 5

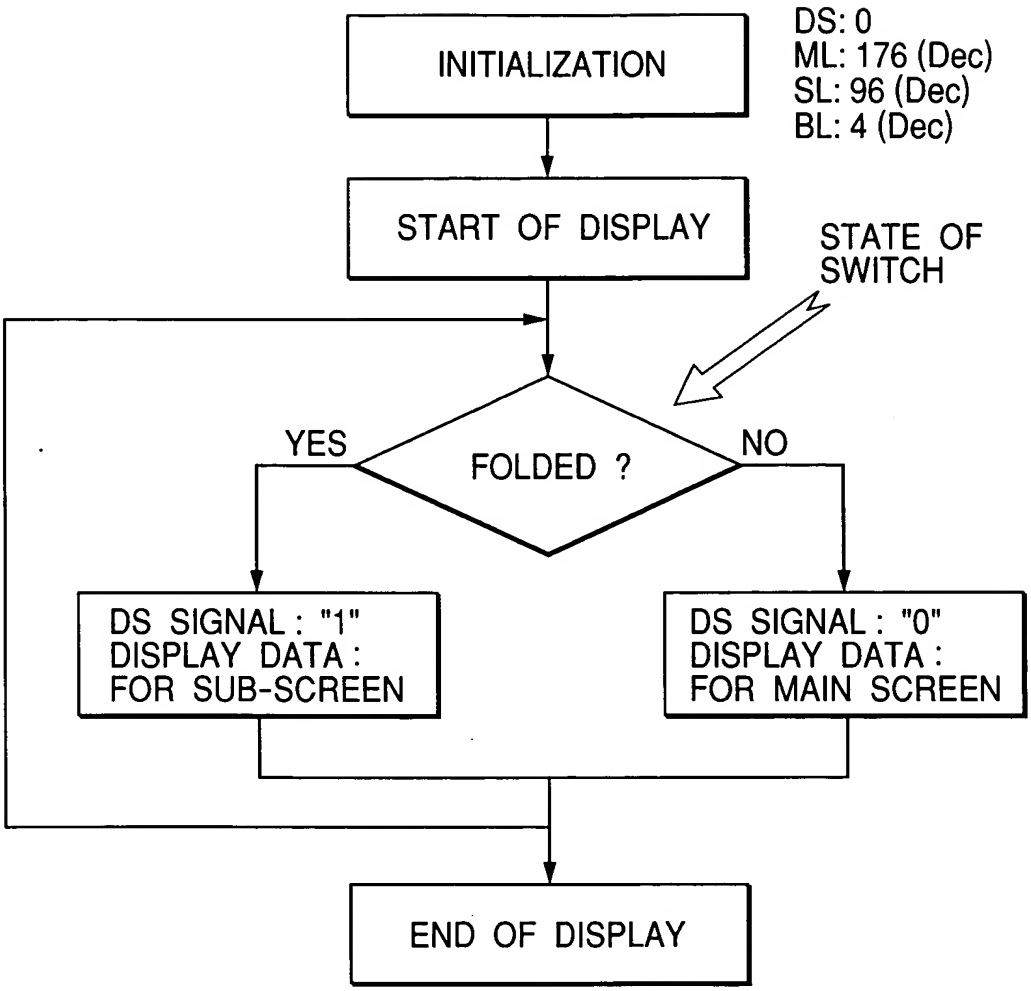

INITIALIZATION
DS: 0
ML: 176 (Dec)
SL: 96 (Dec)
BL: 4 (Dec)
START OF DISPLAY
STATE OF SWITCH
YES
FOLDED ?
NO
DS SIGNAL : "1"
DISPLAY DATA :
FOR SUB-SCREEN
DS SIGNAL : "0"
DISPLAY DATA :
FOR MAIN SCREEN
END OF DISPLAY

FIG. 6

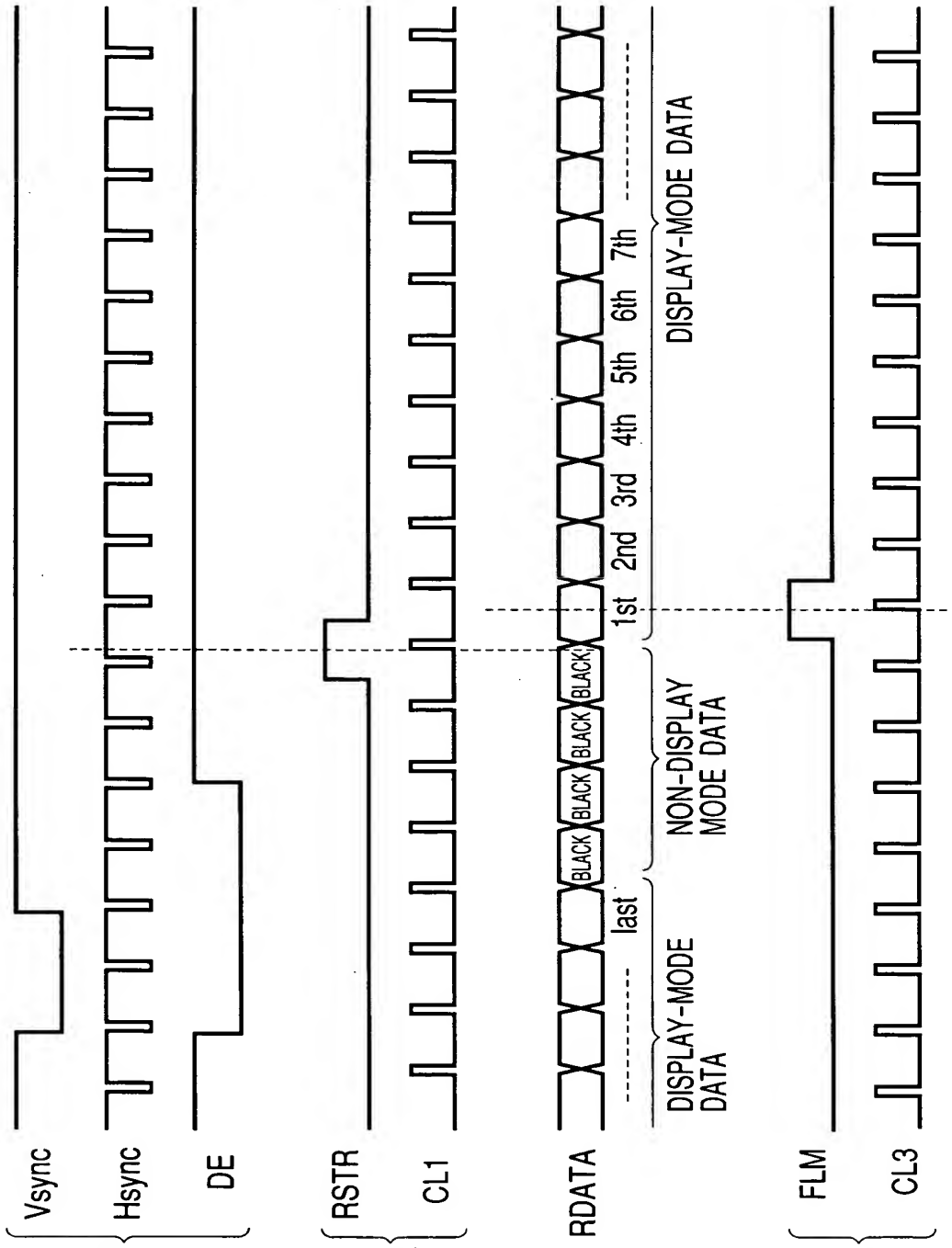

Vsync
Hsync
DE
DISPLAY SYNC SIGNAL 205
RSTR
CL1
MEMORY-READ CONTROL SIGNAL
RDATA
BLACK
BLACK
BLACK
BLACK
last
1st
2nd
3rd
4th
5th
6th
7th
DISPLAY-MODE DATA
NON-DISPLAY MODE DATA
DISPLAY-MODE DATA
MEMORY-READ DATA
FLM
CL3
OPERATION TIMING SIGNAL 320

FIG. 7

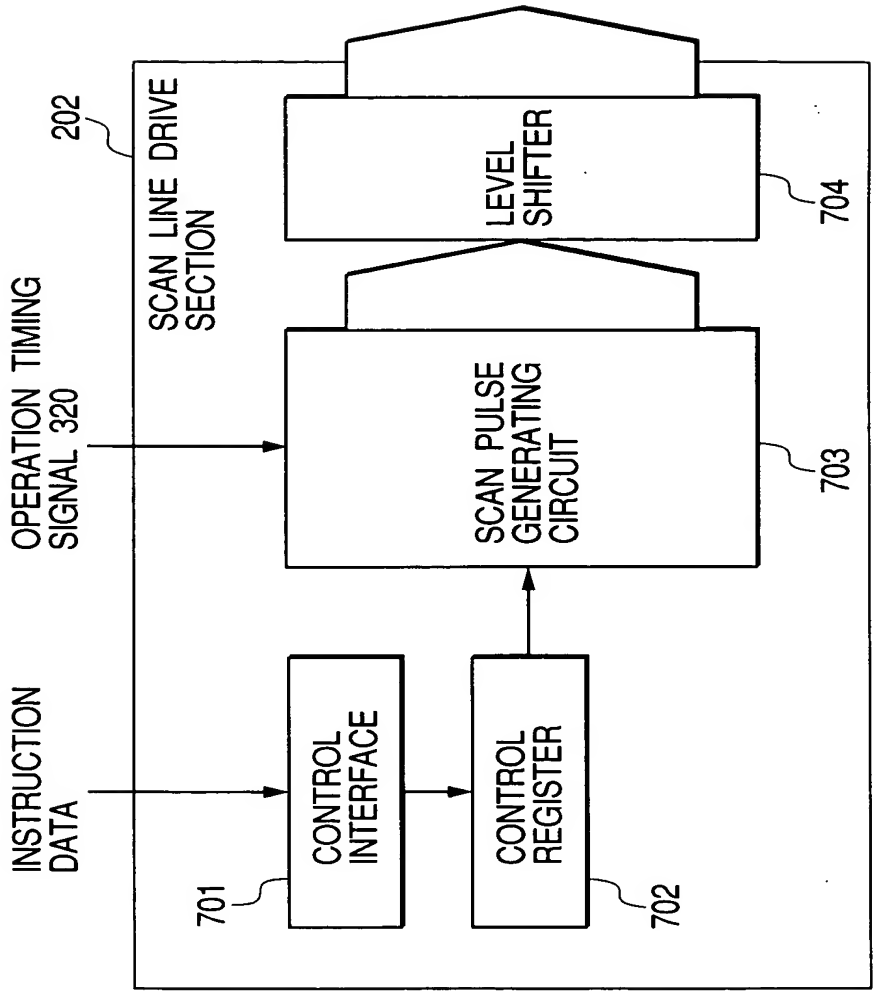

INSTRUCTION DATA
OPERATION TIMING SIGNAL 320
SCAN LINE DRIVE SECTION
202
CONTROL INTERFACE
701
CONTROL REGISTER
702
SCAN PULSE GENERATING CIRCUIT
703
LEVEL SHIFTER
704

FIG. 8

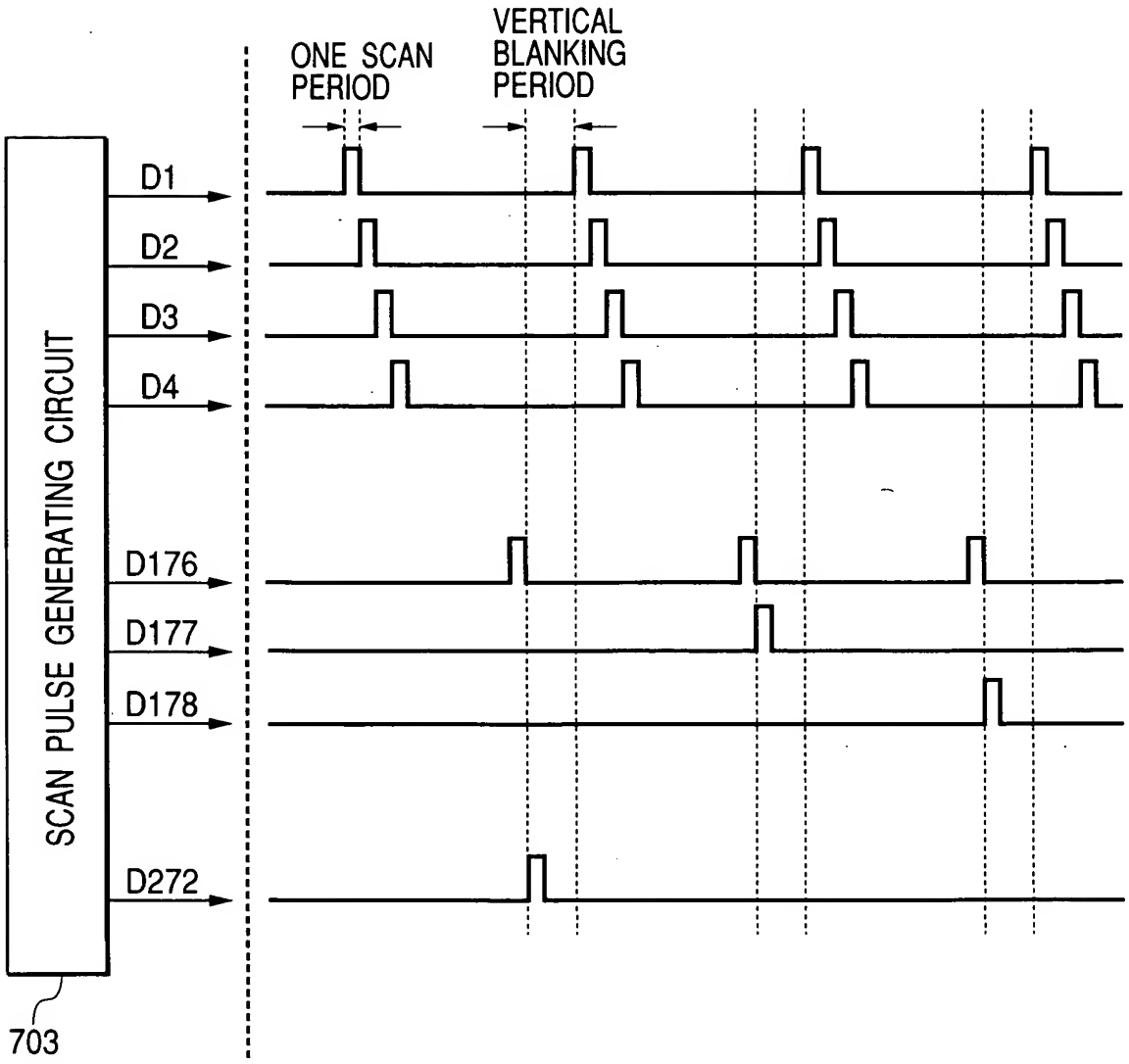

ONE SCAN PERIOD
VERTICAL BLANKING PERIOD
SCAN PULSE GENERATING CIRCUIT
D1
D2
D3
D4
D176
D177
D178
D272
703

FIG. 9

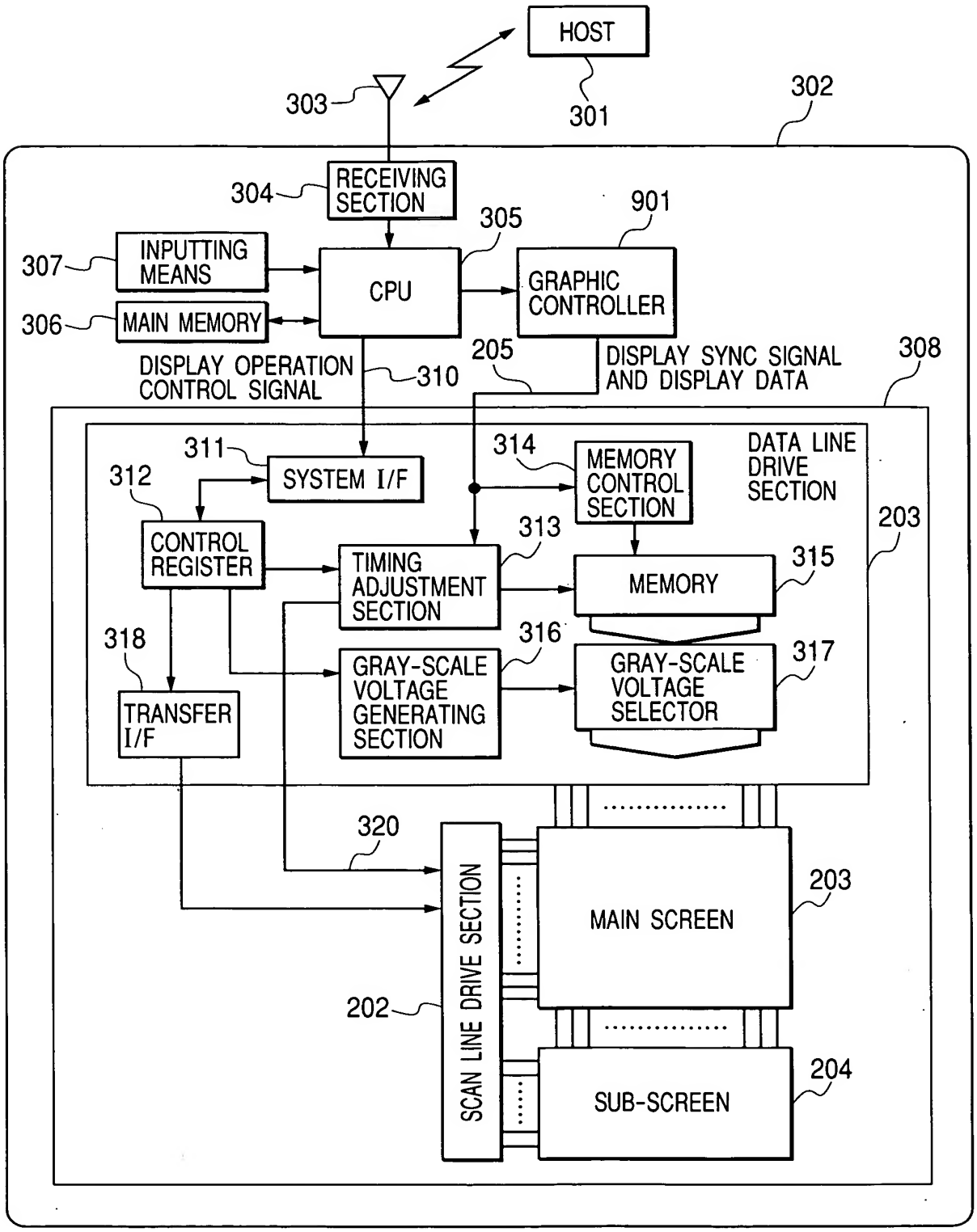

HOST
301
303
302
304
RECEIVING SECTION
305
901
307
INPUTTING MEANS
CPU
GRAPHIC CONTROLLER
306
MAIN MEMORY
205
DISPLAY SYNC SIGNAL AND DISPLAY DATA
308
DISPLAY OPERATION CONTROL SIGNAL
310
311
SYSTEM I/F
314
MEMORY CONTROL SECTION
DATA LINE DRIVE SECTION
312
CONTROL REGISTER
313
TIMING ADJUSTMENT SECTION
315
MEMORY
203
318
316
317
GRAY-SCALE VOLTAGE GENERATING SECTION
GRAY-SCALE VOLTAGE SELECTOR
TRANSFER I/F
320
SCAN LINE DRIVE SECTION
MAIN SCREEN
203
202
SUB-SCREEN
204

FIG. 10

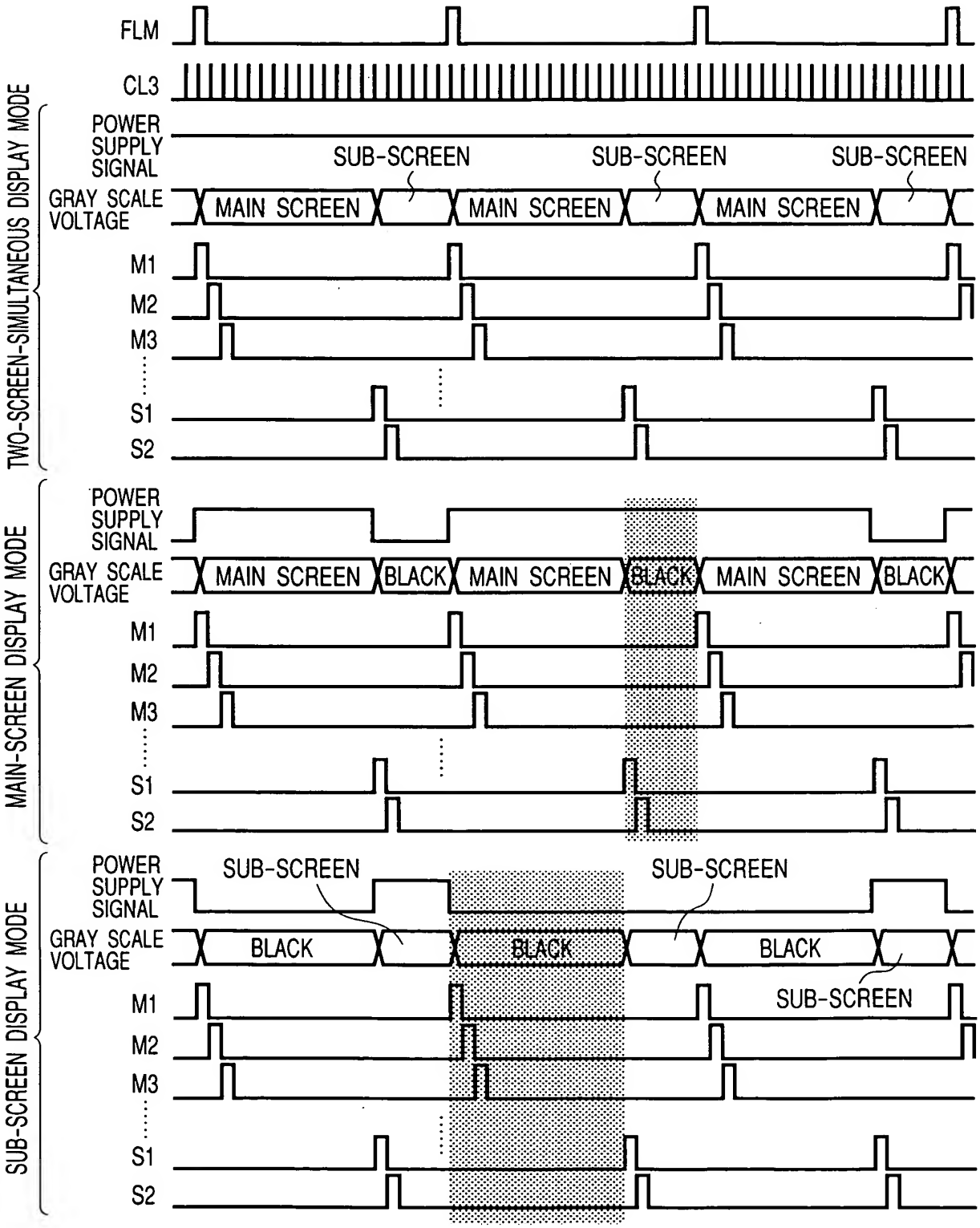

FLM
CL3
TWO-SCREEN-SIMULTANEOUS DISPLAY MODE
POWER SUPPLY SIGNAL
SUB-SCREEN
SUB-SCREEN
SUB-SCREEN
GRAY SCALE VOLTAGE
MAIN SCREEN
MAIN SCREEN
MAIN SCREEN
M1
M2
M3
S1
S2
MAIN-SCREEN DISPLAY MODE
POWER SUPPLY SIGNAL
GRAY SCALE VOLTAGE
MAIN SCREEN
BLACK
MAIN SCREEN
BLACK
MAIN SCREEN
BLACK
M1
M2
M3
S1
S2
SUB-SCREEN DISPLAY MODE
POWER SUPPLY SIGNAL
SUB-SCREEN
SUB-SCREEN
GRAY SCALE VOLTAGE
BLACK
BLACK
BLACK
SUB-SCREEN
M1
M2
M3
S1
S2

FIG. 11

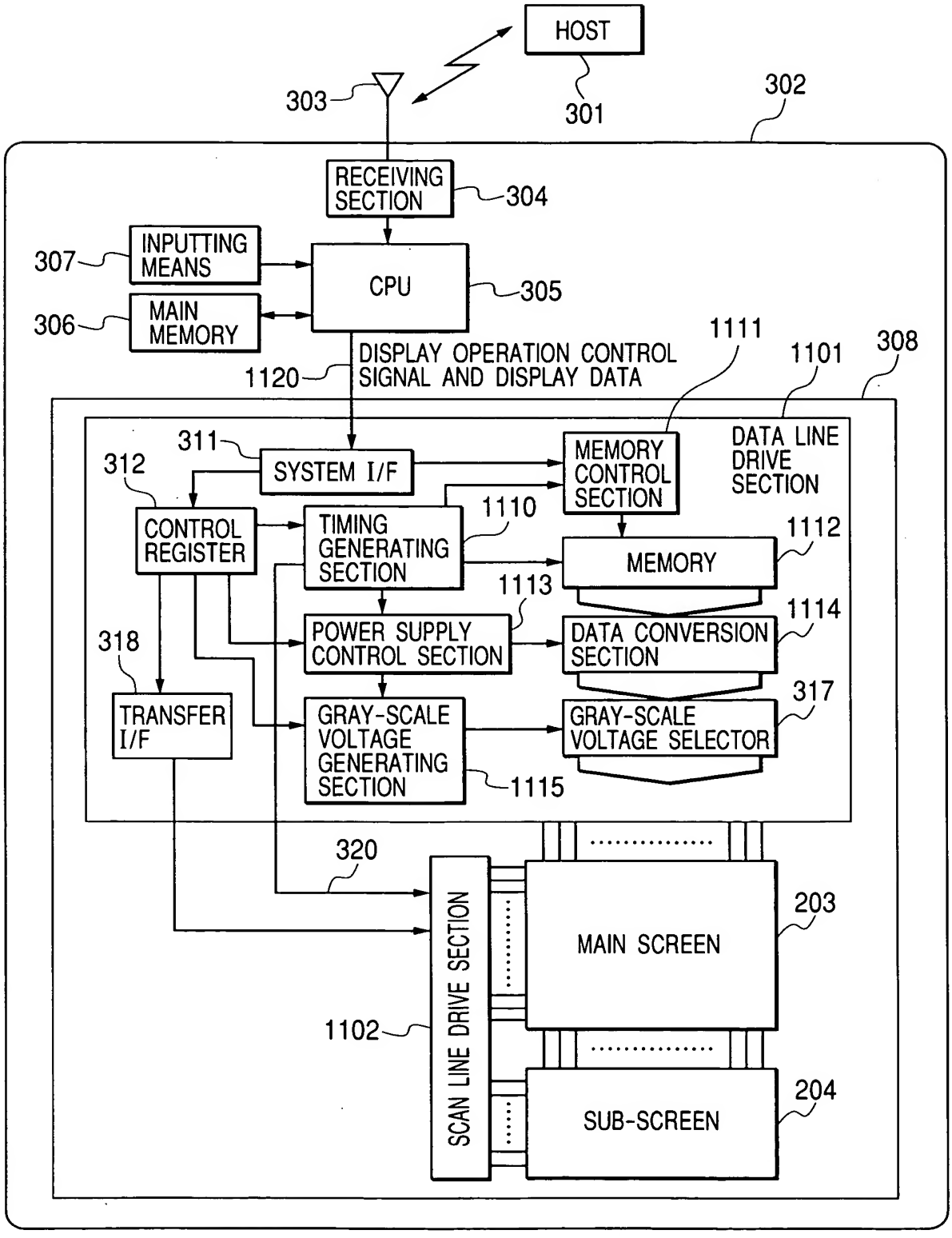
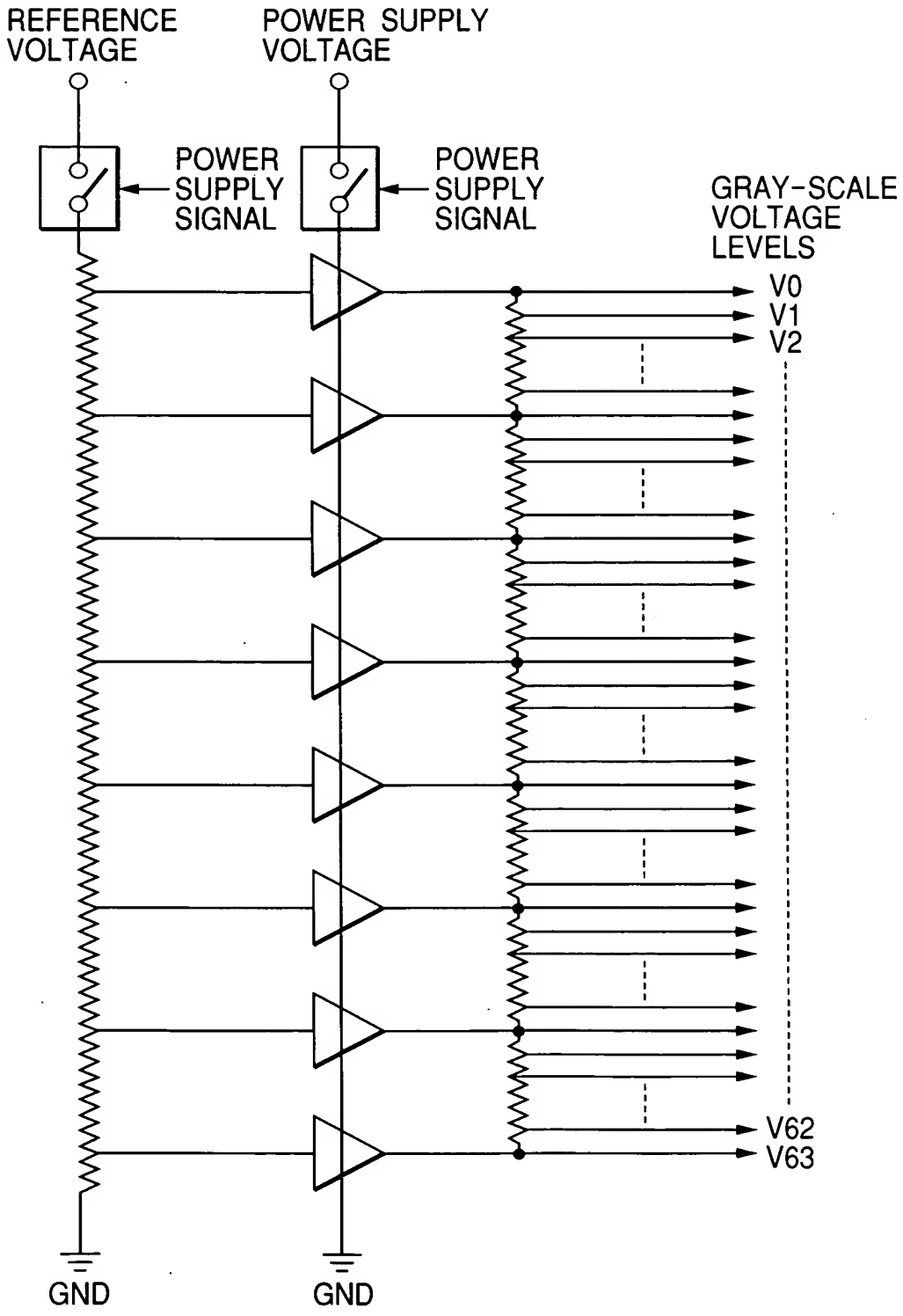

HOST
303
301
302
RECEIVING SECTION
304
307
INPUTTING MEANS
CPU
305
306
MAIN MEMORY
1120
DISPLAY OPERATION CONTROL SIGNAL AND DISPLAY DATA
1111
1101
308
311
312
SYSTEM I/F
MEMORY CONTROL SECTION
DATA LINE DRIVE SECTION
CONTROL REGISTER
TIMING GENERATING SECTION
1110
1112
MEMORY
1113
1114
318
POWER SUPPLY CONTROL SECTION
DATA CONVERSION SECTION
317
TRANSFER I/F
GRAY-SCALE VOLTAGE GENERATING SECTION
GRAY-SCALE VOLTAGE SELECTOR
1115
320
203
MAIN SCREEN
1102
SCAN LINE DRIVE SECTION
204
SUB-SCREEN

FIG. 12


REFERENCE VOLTAGE
POWER SUPPLY VOLTAGE
POWER SUPPLY SIGNAL
POWER SUPPLY SIGNAL
GRAY-SCALE VOLTAGE LEVELS
V0
V1
V2
V62
V63
GND
GND